

Top Occupations and Middle-Skill Jobs in Demand

EMPLOYMENT OVERVIEW

The Charlotte-Concord-Gastonia NC-SC MSA has a growing population with a workforce of more than 1.2 million people. Mecklenburg County, where the average annual wage is nearly \$62,000, has nearly half of the MSA workforce.

Most of the jobs (11.4 percent) in the MSA are in the Healthcare and Social Assistance industry sector, which has seen the increase in jobs over the past five years and is projected to be the fastest growing sector.

The second highest employment is in Retail Trade followed by Accommodation and Food Services. Manufacturing is the fourth largest employment sector in the MSA, employing 8.7 percent of the total workers. In Mecklenburg County, however, manufacturing is the 10th largest sector in Mecklenburg County. Fifth for the MSA, but third for Mecklenburg County is Administrative Support and Waste Management and Remediation Services.

Sectors with the largest concentration of workers as compared to the nation are 1) Management of Companies and Enterprises, 2) Finance and Insurance, and 3) Wholesale Trade.

Employment has increased 1.2 percent in the county and 1.9 percent in the MSA in the year period ending June 2017. The seasonally adjusted employment rate was 3.9 percent for September 2017, lower than the national average rate of 4.4 percent and down from one year earlier when it was 4.8 percent. Employers posted nearly a quarter million jobs in the past 12-month period ending September 30, 2017.

OCCUPATION SNAPSHOT

By occupational groups (defined by SOC 2-digit level), the greatest number of individuals (187,280 or 15.2 percent of all employees) work in Office and Administrative Support Occupations, which has increased annually by 3.3 percent in the past five years. This group has the strongest forecast by number of jobs over the next 10 years. The second highest occupation group is Sales and Related Occupations (139,000 or 11.3 percent of all employees). Both of these groups have middle-wage average annual earnings. The third largest occupational group, Food Preparation and Serving Related Occupations, pays below middle wages and also slightly below the living wage for Mecklenburg County (\$23,629).

MSA EMPLOYMENT FACTS – 2017 Q2

Source: JobsEQ

- Total employment 2017Q2 = 1,226,567
- Avg. annual worker wages = \$53,393
Compares with \$54,335 in US
- Avg. annual growth percent for all industries = 1.4 percent
- Unemployment rate (Sept.) = 3.9%
Below the US rate of 4.4%
- Poverty level:
 - 14.9% (MSA)
 - 15.2% (Mecklenburg)
 - 16.4% (Charlotte Regional Collaborative)

By looking at the number of job postings by Labor Insight (Burning Glass Technologies) for the MSA (12-month period ending Oct. 31, 2017), the most openings for jobs which typically require less than a bachelor's degree (middle-skill or below) were in the following occupations:

SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Mean Salary
29-1141	Registered Nurses	6,215	\$61,660
41-2031	Retail Salespersons	3,194	\$26,370
43-4051	Customer Service Representatives	2,188	\$36,450
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,827	\$79,740
41-1011	First-Line Supervisors of Retail Sales Workers	1,781	\$46,100
49-9071	Maintenance and Repair Workers, General	1,576	\$40,350
43-5081	Stock Clerks and Order Fillers	1,072	\$24,970
31-9092	Medical Assistants	1,026	\$33,330
31-1014	Nursing Assistants	934	\$23,600
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	822	\$35,510

Blue type = Middle Wage

In the last five years, Computer and Mathematical Occupations group grew the fastest (5.7% avg. annual change), followed by Construction and Extraction, Transportation and Material Moving, and Food Preparation and Serving Related Occupations.

The three fastest growing occupation groups in the MSA are expected to be Healthcare Support Occupations, Computer and Mathematical Occupations, and Healthcare Practitioners and Technical Occupations.

Nationally, healthcare and related occupations account for 17 of the top 30 fastest-growing occupations from 2016 to 2016. Other occupations in the top 30 nationally are generally energy-related occupations or employed in computer and information industries.¹¹

The top five occupations (now employing at least 200 workers in the MSA) with the highest average annual growth in these three groups are shown below:

Healthcare Support	Computer and Mathematical	Healthcare Practitioners and Technical
Home Health Aides	Statisticians	Nurse Practitioners
Occupational Therapy Assistants	Operations Research Analysts	Physical Therapists
Physical Therapist Assistants	Web Developers	Physician Assistants
Massage Therapists	Actuaries	Optometrists
Phlebotomists	Computer Systems Analysts	Occupational Therapists

¹¹ T. Lacey, Mitra Toossi, Kevin Dubina, and Andrea Gensler, "Projections overview and highlights, 2016–26," *Monthly Labor Review*, U.S. Bureau of Labor Statistics, October 2017, <https://doi.org/10.21916/mlr.2017.29>.

The slowest growing occupational group was Education, Training, and Library Occupations (0.7%). For Mecklenburg County, the slowest growing occupation groups in the past five years are Farming, Fishing, and Forestry occupations and Production Occupations

Over the next five years, Production Occupations (employing 81,362 or 6.6 percent of all employees) is forecast as the slowest for year-over-year growth. Within that group, negative growth is forecast for Textile, Apparel, and Furnishings Workers and for Printing Workers.

Nationwide, the decline in employment in the manufacturing sector is expected to decrease employment from 2016-2016. In fact, 16 of the 30 occupations with the fastest employment declines are in the production occupational group. These occupations include various machine and tool setters, assemblers, and operators, and their employment losses are expected to total about 109,400 jobs.¹²

Highest wages are in Management Occupations, Legal Occupations and Computer and Mathematical Occupations.

Technological changes over the coming decade are expected to negatively affect some occupations, including those in office and administrative support. Jobs deemed by Labor Insight (Burning Glass Technologies) to be at high risk of automation in the next 20 years and that employ greater than 500 workers in MSA are the following:

SOC	Occupation
13-2011	Accountants and Auditors
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food
43-3031	Bookkeeping, Accounting, and Auditing Clerks
35-2014	Cooks, Restaurant
51-9199	Production Workers, All Other
53-3031	Driver/Sales Workers

WHAT INDUSTRIES ARE HIRING FOR MIDDLE-SKILL JOBS?

Below are the top 10 industries with the most new workers with middle skills.

1. Employment Services
2. Restaurants and Other Eating Places
3. Services to Buildings and Dwellings
4. General Medical and Surgical Hospitals
5. Elementary and Secondary Schools
6. Foundation, Structure, and Building Exterior Contractors*
7. Building Equipment Contractors*
8. Building Finishing Contractors*
9. Management, Scientific, and Technical Consulting Services
10. Grocery Stores

* NAICS 238: Construction, Subsector - Specialty Trade Contractors

Source: Labor Insight (Burning Glass Technologies)

¹² See source in footnote 11.

EDUCATION LEVELS

Mecklenburg County has a higher number of individuals aged 25-64 who hold a bachelor's degree – 44.2 percent compared to the region's 34.4 percent and the 28.2 percent in the nation. Just under 10 percent of county residents have no high school diploma.

Employment is expected to grow overall in the county and in the MSA, with the most growth at the post-graduate degree level of education. Occupations typically needing a two-year degree or certificate are expected to grow at 1.9 percent per year in the county and at 1.7 percent a year in the MSA.

JobsEQ reports on employment by training required for all occupations in the MSA. In the second quarter 2017 data, it shows 8 percent of jobs need a 2-year degree or certificate, while 25 percent need a bachelor's degree or higher. The majority of jobs (40 percent) require short-term OJT, no experience and no award.

Annual projected job growth for those with a 2-year degree or certificate is 1.7 percent in the MSA, about the same as for those with a bachelor's degree. This compares with 1.3 percent growth for those with short-term OJT, no experience and no award.

INDUSTRY CLUSTERS

The highest concentration of interrelated industries or occupations in the county is Financial Services employing more than 61,000 workers with average wages of \$115,261. The cluster is expected to expand employment at 1.6 percent per year in the next 10 years. For the MSA, the concentration is the Textile/Leather cluster with 8,269 workers at average wage of \$39,424. This cluster is contracting in the next decade.

GROSS DOMESTIC PRODUCT

The top contributors to the county and the MSA's GDP, by rank order, are the following:

1. Finance and Insurance
2. Real Estate and Rental and Leasing
3. Manufacturing
4. Health Care and Social Assistance

MIDDLE-SKILL AND MIDDLE-WAGE JOBS

- Middle-wage jobs (earning avg. annual wages of \$35,000 to \$70,000) make up 40 percent of the workforce in Mecklenburg County (37.4 percent in the MSA).
- 291 of the 750 total SOC defined occupations earn middle wages in the MSA.
- Middle-wage jobs are expected to need 63,268 workers as replacements and 43,081 for job growth over the next 10 years in Mecklenburg County. Total demand of 106,349. (The larger MSA projected need is 159,611).

Fastest-growing middle-wage and middle-skill jobs (find in Table O in All Industries) are the following, along with programs at CPCC as shown in CPCC’s Career Coach¹³:

Occupation	CPCC Degrees Available
1. Physical Therapist Assistants	A45640 http://www.cpcc.edu/health_sciences/physical-therapist-assistant
2. Occupational Therapy Assistants	A45500 - Occupational Therapy Assistant [Degree] http://www.cpcc.edu/health_sciences/ota
3. Massage Therapists	Currently none
4. Electrical Power-Line Installers and Repairers	Currently none
5. Diagnostic Medical Sonographers	Cardiovascular Technology Associate's Degree (CVT); Cardiac Sonographer/Echocardiography Technologist (Non-Invasive) https://www.cpcc.edu/health-human-services/cvt
6. Ophthalmic Medical Technicians	D45510 https://www.cpcc.edu/medicalcareers/ophthalmic-medical-assisting
7. Opticians, Dispensing	D45510 - Ophthalmic Medical Assistant [Diploma] http://www.cpcc.edu/health_sciences/medicalcareers
8. Cardiovascular Technologists and Technicians	A45170 - Cardiovascular Technology [Degree] http://www.cpcc.edu/nursing_human_services/cvt
9. Court Reporters	Currently none
10. Dental Assistants	D45240 - Dental Assisting [Diploma] http://www.cpcc.edu/health_sciences/dental-assisting

HIGHLIGHTS FROM TOP INDUSTRY SECTORS

Ranked in by size of employment in the MSA

Health Care and Social Assistance (Section 3)

- Employs 134,054 at avg. annual salary is \$53,430.
- There are 5,297 who work as Self-Employed at an average annual wages of \$36,721.
- Home Health Care Services (4-digit NAICS – Industry Group) employs nearly 9,000 workers (Covered Employment) and is the fastest-growing industry within the group at 5.3 percent avg. annual growth.
- Physician’s Offices will require more than 5,000 in replacement demand in the next 10 years.
- Top demand middle-skill and middle-wage job postings are as follows:
 - Registered Nurses
 - Licensed Practical and Licensed Vocational Nurses
 - Medical and Clinical Laboratory Technicians
 - Medical Secretaries
 - Medical Records and Health Information Technicians
 - Respiratory Therapists
- Highest 10-year total demand will be for the following:
 - Registered Nurses
 - Nursing Assistants

¹³ CPCC Career Coach online career guidance tool is available to the community at <https://www.cpcc.edu/careerhub>.

- Home Health Aides
- Personal Care Aides
- Medical Assistants
- Carolinas HealthCare System posts nearly half of all jobs in this industry.

Retail Trade

- Employs 127, 784 with avg. annual salary of \$28,963.
- There are 5,339 in Self-Employment and average annual wages are \$32,415.
- Motor Vehicle and Parts Dealers is the fastest-growing group.
- Retail Salespersons is the top occupation and will have the highest demand in next 10 years.
- Risk of Automation is high for many retail jobs.
- The highest (10-year total) demand middle-wage occupations are
 - First-line Supervisors of Retail Sales Workers (4,746)
 - Automotive Service Technicians and Mechanics
 - Customer Service Representatives
- The 10-year total demand for Retail Salespersons, Cashiers and Stock Clerks and Order Fillers is nearly 37,000.

Accommodation and Food Services

- Employs 106,468 with avg. annual wages of \$17,895.
- There are 1,594 in Self-Employment and average annual wages are \$31,300.
- Restaurants and Eating Places employ the most workers (88,585)
- First-line Supervisors had the most jobs postings.
- 10 of the top 15 occupational titles are in the “High Risk” for automation group determined by Burning Glass. These 10 groups cover more than 72,000 workers.
- The highest (10-year total) demand middle-wage occupations are
 - Food Service Managers
 - Maintenance and Repair Workers, General
 - Chefs and Head Cooks

Manufacturing

- Employs 104,371 at avg. annual wages of \$58,107.
- Fabricated Metal Product Manufacturing and Machinery Manufacturing with the largest subsectors with nearly 25,000 employees.
- Highest 10-year demand will be for the following:
 - Team Assemblers
 - There is no 10-year growth for assemblers, but projections show it will be exclusively for replacement demand (2,049).
 - Machinists
 - Packaging and Filling Machine Operators and Tenders
- Along with Utilities, Manufacturing is expected to have negative average annual growth percentage over the next 10 years. The largest drop (5.6 percent) is projected in apparel manufacturing.
- The most postings by occupation were for Sales Representatives, Maintenance and Repair Workers, General and Managers.
- Maintenance and Repair Workers, General occupation is both middle wage and middle skill with the second-highest number of job postings (677) in the sector.
- Top middle-skill and middle-wage occupations include:
 - Machinists
 - Industrial Machinery Mechanics

- Welders, Cutters, Solderers and Brazers
- Computer-Controlled Machine Tool Operators, Metal and Plastic
- Maintenance and Repair Workers, General
- Within Production Occupations, the three fastest-growing occupations are the following:
 - Computer-Controlled Machine Tool Operators, Metal and Plastic
 - Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
 - Dental Laboratory Technicians

Admin. Support and Waste Management and Remediation Services

- Employs 85,639 at avg. annual wages of \$54,848.
- Highest forecast growth over the next 10 years is in Facilities Support Services
- Top demand occupations are Laborers and Freight, Stock and Material Movers, Customer Service Representatives, Janitors and Cleaners.
- The most job postings were for Sales Representatives, Customer Service Representatives and Security Guards.
- Fastest-growing occupations are:
 - Medical Secretaries
 - Billing and Posting Clerks
 - Brokerage Clerks

Professional, Scientific and Technical Services

- Employs 74,237 at avg. annual wages of \$80,625.
- Highest growth subsector Management, Scientific, and Technical Services
- Most job postings were for Computer Occupations, Other; Software Developers, Applications; and Management Analysts.
- Highest 10-year total demand will be for Accountants and Auditors, Management Analysts, Software Developers, Applications.
- Top occupations that are middle-skill and middle-wage in the IT Career Cluster are
 - Computer User Support Specialist
 - Computer Network Support Specialists

Educational Services

- Employs 73,406 with avg. annual wages of \$41,634.
- Middle-skill jobs in demand by postings include:
 - Pre-school Teachers, Except Special Education
 - Teacher Assistants
 - Secretaries and Administrative Assistants
 - Maintenance and Repair Workers
 - Registered Nurses.
- Highest demand in the next 10-years will be for Elementary School Teachers, except Special Education.

Finance and Insurance

- Employs 70,756 with avg. annual wages of \$107,252.
- Most postings shows demand for
 - Computer Occupations, All Other
 - Financial Analysts
 - Management Analysts
 - Software Developers, Applications
 - Managers, All Other.

- 10-year demand is highest for Customer Service Representatives, Personal Financial Advisors, and Insurance Sales Agents.
- Customer Service Representatives in Mecklenburg County make \$38,000 (regional average wage) and the 10-year total demand is 2,263.

Construction

- Employs 61,478 with avg. annual wages of \$57,943.
- Utility System Construction has the highest forecast growth over next 10 years.
- Top middle-skill, middle-wage jobs include:
 - Electricians
 - Plumbers, Pipefitters and Steamfitters
 - Electrical Power-line Installers and Repairers
 - Maintenance and Repair Workers, General;
 - Heating, A/C and Refrigeration Mechanics and Installers
 - Welders, Cutters, Solderers, and Brazers
- Highest total demand in the next 10 years in construction will be for laborers, electricians, supervisors and carpenters.

Wholesale Trade

- Employs 59,378 with avg. annual wages of \$68,594.
- Top demand by job postings for Sales Representatives, Laborers and Truck Drivers.
- Highest 10-year total demand is for Sales Representatives.

Transportation and Warehousing

- Employs 53,883 with avg. annual wages of \$51,121.
- Truck Transportation (NAICS 3-digit level group) employs 14,406 workers with an average annual wage of \$47,283. Replacement demand over the next 10 years is 2,913.
- Heavy and Tractor-Trailer Drivers is the top job posting by far in this group, followed by Laborers and Freight, Stock and Material Movers, Hand.
- Middle-skill, middle-wage jobs include:
 - Motorcycle Mechanics
 - Aircraft Mechanics and Service Technicians
 - Automotive Service Technicians and Mechanics
- Heavy and Tractor-Trailer Driver is not included in the O*NET Job Zone 3 as middle-skilled. It does require a postsecondary non-degree award.

POSSIBLE NEXT STEPS

Future studies may group selected occupations by NC Career Clusters and CPCC Clusters and programs. A sample alignment in a Manufacturing cluster pathway is in the Notes and Appendix: NC Career Clusters.

More targeted studies may also be created for selected or custom occupations, skill sets or industry groups. Examples include STEM occupations, top healthcare employers' job postings, and keywords of certifications, specialized computer software or credentials (CDL, PMP, EMT, etc.)

ⁱ While many middle-skilled jobs are middle-wage jobs, occupational and educational levels differ, so categorization can affect the measurement of wages and educational attainment. Workers holding an associate's degree who earn technical credentials typically have higher wages than those who majored in liberal sciences or general studies. So, by lumping all middle-skilled workers who have associate's degrees into one category, average earnings for this educational group skew lower than if we looked at earnings of only those workers with technical credentials. Thus, the average of wages for all middle-skill jobs is not that useful. Source: "Job market polarization and U.S. worker skills: a tale of two middles" (Harry Holzer, The Brookings Institution, Economic Studies at Brookings, April 2015)